CLAIMS

1. A controller apparatus configured to implement paging control in which, when the controller apparatus receives a packet addressed to a mobile terminal, the controller apparatus transmits a paging notification packet to a paging area of the mobile terminal, so as to obtain location information on the mobile terminal and to determine a forwarding destination of the packet, the controller apparatus comprising:

a paging area forming unit having a plurality of algorithms for forming the paging area;

wherein the paging area forming unit is configured to form the paging area of the mobile terminal by an algorithm specified by the mobile terminal.

2. The controller apparatus as set forth in claim 1, wherein the paging area forming unit is configured to form the paging area of the mobile terminal, in accordance with a load condition or traffic distribution of the controller apparatus.

3. A mobile terminal configured to implement paging control in which, when a controller apparatus receives a packet addressed to the mobile terminal, the controller apparatus transmits a paging notification packet to a paging area of the mobile terminal, so as to obtain location information on the mobile terminal and to determine a forwarding destination of the packet, the mobile terminal comprising:

an algorithm specifying unit configured to specify, to the controller apparatus, an algorithm for forming the paging

area of the mobile terminal; and

a paging control unit configured to perform the paging control based on information on the paging area formed by the controller apparatus based on the algorithm.

4. The mobile terminal as set forth in claim 3, further comprising:

a processing language specifying unit configured to specify, to the controller apparatus, a processing language in which an algorithm for forming the paging area is written;

wherein the algorithm specifying unit is configured to specify the algorithm written in the processing language when a result of determination that the processing language can be handled is received from the controller apparatus.

5. A controller apparatus configured to implement paging control in which, when the controller apparatus receives a packet addressed to a mobile terminal, the controller apparatus transmits a paging notification packet to a paging area of the mobile terminal, so as to obtain location information on the mobile terminal and to determine a forwarding destination of the packet, the controller apparatus comprising:

an algorithm specifying unit configured to specify, to the mobile terminal, an algorithm for forming the paging area of the mobile terminal; and

a paging control unit configured to perform the paging control based on the paging area formed by the mobile terminal based on the algorithm.

6. The controller apparatus as set forth in claim 5, further comprising:

a processing language specifying unit configured to specify, to the mobile terminal, a processing language in which an algorithm for forming the paging area is written;

wherein the algorithm specifying unit is configured to specify the algorithm written in the processing language when a result of determination that the processing language can be handled is received from the mobile terminal.

7. A mobile terminal configured to implement paging control in which, when a controller apparatus receives a packet addressed to a mobile terminal, the controller apparatus transmits a paging notification packet to a paging area of the mobile terminal, so as to obtain location information on the mobile terminal and to determine a forwarding destination of the packet, the mobile terminal comprising:

a paging area forming unit having a plurality of algorithms for forming the paging area;

wherein the paging area forming unit is configured to form the paging area of the mobile terminal by an algorithm specified by the controller apparatus.

8. The mobile terminal as set forth in claim 7, wherein the paging area forming unit is configured to form the paging area of the mobile terminal, in accordance with a communicating use or movement characteristics of the mobile terminal.

9. A mobile terminal configured to implement paging control

in which, when a controller apparatus receives a packet addressed to a mobile terminal, the controller apparatus transmits a paging notification packet to a paging area of the mobile terminal, so as to obtain location information on the mobile terminal and to determine a forwarding destination of the packet, the mobile terminal comprising:

a paging area forming unit having algorithms for forming the paging area; and

a transmitting unit configured to transmit, to the controller apparatus, information on the paging area formed by the paging area forming unit;

wherein, when information on the paging area different from the information on the paging area formed by the paging area forming unit is received from the controller apparatus, the transmitting unit is configured to transmit, to a different controller apparatus, the information on the paging area formed by the paging area forming unit.